CAplus Answer Number 8 - © 1997 ACS

PVC + Fluoro... coating

Title

Soilproofing, fire-resistant, and translucent sheets coated with **fluoropolymer** layers and their manufacture

Inventor Name

Seki, Masao

Patent Assignee

Toray Industries, Inc., Japan

Publication Source

Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN

JKXXAF

Patent Information

JP 09226064 A2 970902 Heisei

Application Information

JP 96-36291 960223

Abstract

Sheets useful for tents, automobile hoods, construction materials, and greenhouses are coated with 20-2000 .ANG.-thick **fluoropolymer** films at .gtoreq.1 side. The sheets are manufd. by low-temp. plasma polymn. on polymer sheets in the presence of F-contg. monomers to form 20-2000 .ANG.-thick thin film layers. Thus, a water-repellent poly(ethylene terephthalate) fabric [total light transmittance (T) 56%] was sandwiched between **poly(vinyl chloride)** sheets (d.p. 1000) contg. plasticizers, Sb2O3, TiO2, a UV absorber, and stabilizers and plasma-treated with C4F8 to give a sheet which was coated with 15 .ANG.-thick polymer layers and showed T 48%, good soilproofing properties, and fire resistance, and the sheet was used as a roofing material for tennis courts.

International Patent Classification

International Patent Classification, Main

B32B027-00

International Patent Classification, Secondary

B32B027-12; B32B027-16; B32B027-30

Document Type

Patent

Language

Japanese

Supplementary Indexing

soilproofing sheet **fluoropolymer** coating plasma polymn; PVC sheet antisoiling coating **fluoropolymer**; tent roof soilproofing **polyvinyl chloride** sheet; automobile hood antisoiling sheet **fluoropolymer** coating; construction material soilproofing **fluoropolymer**; greenhouse

CAplus Answer Number 30 - © 1997 ACS

Title

Coating compositions for **vinyl chloride polymer** moldings and their **coating** method

Inventor Name

Nishimatsu, Tadao; Terada, Saburo

Patent Assignee

Honey Kasei Kk, Japan; Hirono Kagaku Kogyo

Publication Source

Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN

JKXXAF

Patent Information

JP 07316486 A2 951205 Heisei

Application Information

JP 94-137825 940530

Abstract

The title compns., useful for applying on **vinyl chloride polymer** moldings primed with acrylic polymers or their mixts. with **vinyl chloride polymers**, comprise (A) soft **fluoropolymers** comprising fluoro rubbers and vinylidene fluoride polymers and (B) copolymers of monomers having quaternary ammonium halide groups N+R1R2R3.Y- (R1-3 = alkyl; Y = halogen) and .alpha.,.beta.-ethylenically unsatd. groups CH2:CR4 (R4 = H, Me) and other unsatd. monomers. Thus, a soft **poly(vinyl chloride)** sheet was primed with a primer contg. Denka Vinyl M 70 50, Dianal BR 85 25 and MEK 25 parts and finished with a compn. contg. 50 parts Cefral Soft G 180 and 25 parts DQ 100 (2-methacryloyloxyethyltrimethylammonium chloride)-Me methacrylate copolymer to give a test piece showing good adhesion and weather resistance.

International Patent Classification

International Patent Classification, Main

C09D127-16

International Patent Classification, Secondary

C08J007-04; C09D139-02

Document Type

Patent

Language

Japanese

Supplementary Indexing

fluoropolymer blend acrylic polymer **coating**; **polyvinyl chloride** molding **fluoropolymer coating**; quaternary ammonium acrylic polymer **coating**; weather resistance **coating fluoropolymer**

IT Related Fields

Indexing

Concept Group

CAplus Answer Number 49 - © 1997 ACS

Title

Coated thermoplastic resin sheets and the **coating** compositions

Inventor Name

Miura, Ryuichi; Yoneyama, Teru; Takayanagi, Takashi

Patent Assignee

Asahi Glass Co Ltd, Japan

Publication Source

Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN

JKXXAF

Patent Information

JP 06073330 A2 **940315** Heisei

Application Information

JP 92-266691 920909

Priority Application Information

JP 92-190088 920624

Abstract

The resin sheets are coated with compns. consisting of (1) carboxyl group-contg. **fluoropolymers** with acid value 10-150 mg KOH/g, (2) carboxyl group-contg. acrylic polymers which are compatible with the **fluoropolymers** and have acid value 10-150 mg KOH/g, and (3) 0.1-30 phr Al chelates. A soft **poly(vinyl chloride)** sheet was coated with a compn. contg. (1) 50 parts of a hexahydrophthalic anhydride-modified 39.4:48.1:12.5 copolymer of Bu vinyl ether, tetrafluoroethylene and .omega.-hydroxybutyl vinyl ether, (2) 50 parts of a 6:2:2 copolymer of iso-Bu methacrylate, Bu methacrylate and methacrylic acid, and (3) 20 parts Alumichelate D. The **coating** was storage-stable and had good adhesion, weather resistance, blocking resistance and weldability.

International Patent Classification

International Patent Classification, Main

C09D133-16

International Patent Classification, Secondary

C09D133-16; C08J007-04; C09D127-12

Document Type

Patent

Language

Japanese

Supplementary Indexing

thermoplastic resin sheet **coating**; **fluoropolymer** acrylic polymer **coating**; aluminum chelate **coating** thermoplastic

CAplus Answer Number 45 - © 1997 ACS

Title

Manufacture of aqueous dispersions of fluorine-containing polymers for oil- and water-repellent coatings

Inventor Name

Ito, Katsuji; Kamata, Takashi

Patent Assignee

Asahi Glass Co Ltd, Japan

Publication Source

Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN

JKXXAF

Patent Information

JP 06287548 A2 941011 Heisei

Application Information

JP 93-100491 930402

Abstract

The title dispersions are prepd. by emulsion polymn. of fluoroalkyl group-contg. unsatd. monomers and other monomers using a persulfate as the initiator and a polyoxyalkylene monoalkyl ether as the emulsifier. A mixt. of H2C:CHCO2CH2CH2R [R = C9 (av.) perfluoroalkyl] 60, stearyl acrylate 36, and 2-hydroxyethyl acrylate 4 parts was polymd. in the presence of K2S2O8 in water contg. polyethylene glycol mono-sec-dodecyl ether at 60° to give an emulsion which was dild. with H2O to 1.5% solids and applied to nylon fabric to give water repellency (JIS L1092) 100.

International Patent Classification

International Patent Classification, Main

C09K003-18

International Patent Classification, Secondary

C08F002-30; C08F220-22; D06M013-17; D06M015-277

Document Type

Patent

Language

Japanese

Supplementary Indexing

fluoroalkyl acrylate copolymer oilproofing waterproofing; waterproofing fluoroalkyl acrylate copolymer dispersion; oilproofing fluoroalkyl acrylate copolymer dispersion; ethoxylate dispersant fluoroalkyl acrylate copolymer; hydroxyethyl acrylate **fluoropolymer** dispersion; stearyl acrylate **fluoropolymer** dispersion; nylon fabric oilproofing waterproofing **fluoropolymer**

IT Related Fields

CAplus Answer Number 40 - © 1997 ACS

Title

Coated **poly(vinyl chloride)** sheets and manufacture thereof

Inventor Name

Sudo, Hiroshi; Tanaka, Kotaro; Hara, Yasuo

Patent Assignee

Sato Kogyo, Japan; Ogawa Tent Co Ltd; Japan Synthetic Rubber Co Ltd

Publication Source

Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN

JKXXAF

Patent Information

JP 07039812 A2 950210 Heisei

Application Information

JP 93-210982 930802

Abstract

Sheets are coated with primers such as PMMA and topcoated with fluororesins.

International Patent Classification

International Patent Classification, Main

B05D007-04

International Patent Classification, Secondary

B05D007-24; E04H015-54

Document Type

Patent

Language

Japanese

Supplementary Indexing

PMMA fluororesin **coating** PVC

IT Related Fields

Indexing

Concept Group

Concept Heading

Coating materials

Text Modification

(PVC sheets primed with PMMA and coated with fluororesins)

IT Related Fields

Indexing

Concept Group

Concept Heading

Soiling-resistant coated fabrics for building construction

Inventor Name

Kamya, Kuniaki

Patent Assignee

Kyoowa Kk, Japan

Publication Source

Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN

JKXXAF

Patent Information

JP 07004064 A2 **950110** Heisei

Application Information

JP 93-180581 930616

Abstract

The title fabrics are prepd. by **coating** fabrics of **vinyl chloride polymer** paste-coated yarns with compns. comprising polymers contg. fluoroolefin units 25-75, fatty acid vinyl ester or fatty acid isopropenyl ester units 10-70, hydroxyallyl ether units 3-40, carboxy group-contg. monomer units 0.1-20, and other monomer units 0-10 mol% and crosslinking agents to give fabrics with **coating** wt. 1-10 g/m2. **Polyester** multifilament yarns were coated with a paste sol contg. PVC, made into a woven fabric, heat treated 60 s at 150°, immersed in a soln. contg. a mixt. of 75 parts 50% chlorotrifluoroethylene-ethylene glycol monoallyl ether-vinyl acetate copolymer soln. and 25 parts blocked polyisocyanate, squeezed to solids content 3 g/m2, and heat treated 30 s at 120° and 1 min at 150°, and wound to give a coated fabric with soiling rating (5 very low soiling, 1 very high soiling) 3 after using the sheet for 4 mo.

International Patent Classification

International Patent Classification, Main

E04G021-32

International Patent Classification, Secondary

D03D015-00; D06M015-347

Document Type

Patent

Language

Japanese

Accession Number

1995:470298

Reference Number

122:216467

CAplus Answer Number 56 - © 1997 ACS

Title

Fluoroolefin polymer **coatings** for vinyl chloride resin moldings to prevent plasticizer migration

Inventor Name

Wada, Susumu; Mori, Haruhiko; Shimizu, Yoshiki; Senda, Akira

Patent Assignee

Daikin Ind Ltd, Japan

Publication Source

Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN

JKXXAF

Patent Information

JP 05163456 A2 930629 Heisei

Application Information

JP 91-331825 911216

Abstract

Title **coatings** contain hardeners and polymers prepd. from CF2:CFX (X = F, Cl, H, CF3), CH2:CR(CH3) (R = C1-8 alkyl), CH2:CHR1 (R1 = OR2 or CH2OR2, R2 = OH-contg. alkyl), and other monomers. A compn. contg. Takenate D 140 M, and C2ClF3-isobutylene-4-hydroxybutyl vinyl ether-vinyl pivalate copolymer was applied on a vinyl chloride resin plate to form a plate with good corrosion, chem., soil, and weather resistance.

International Patent Classification

International Patent Classification, Main

C09D127-12

International Patent Classification, Secondary

C08F214-18; C09D127-12

Document Type

Patent

Language

Japanese

Supplementary Indexing

fluoro olefin polymer **coating** PVC; plasticizer migration preventive fluoro **coating** PVC

IT Related Fields

Indexing

Concept Group

Concept Heading

Fluoropolymers

CAplus Answer Number 98 - © 1997 ACS

Title

End group-modified fluoroalkylepoxyalkane polymers and their uses as surface property modifiers

Inventor Name

Shinjo, Masayoshi; Hayashi, Kazunori

Patent Assignee

Daikin Industries, Ltd., Japan

Publication Source

Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN

JKXXAF

Patent Information

JP 63248827 A2 881017 Showa

Application Information

JP 87-83182 870403

Abstract

The title polymers, useful as water and oil repellents for fibers and non-fibers, adhesion preventers (mold, internal, adhesive releases), and soiling preventers, are (co)polymers of epoxy compds. I (Rf = C3-21 fluoroalkyl; p = 1-10) with no.-av. mol. wt. 2000-50,000, and their terminal OH or COOH groups are modified by acylation or alkoxylation. A copolymer was prepd. from 9.67 g I (Rf = (CF3)2CF(CF2CF2)3; p = 1] and THF, and esterified with AC2O to give a modified copolymer of no.-av. mol. wt. 12,500.

International Patent Classification

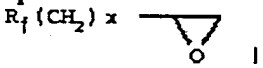
International Patent Classification, Main

C08G065-22

International Patent Classification, Secondary

C08G065-32

Graphic



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Document Type

Patent

Language

Japanese

Supplementary Indexing

fluorine contg polyoxyalkylene oilproofing; waterproofing fluorine contg polyoxyalkylene; adhesion preventer fluorine contg polyoxyalkylene; soiling preventer fluorine contg polyoxyalkylene; mold release fluorine contg polyoxyalkylene; internal release fluorine contg polyoxyalkylene; adhesive release fluorine contg polyoxyalkylene

IT Related Fields

CAplus Answer Number 105 - © 1997 ACS

Title

Surface-coated **poly(vinyl chloride)** moldings

Inventor Name

Ohayashi, Atsushi; Arai, Hiromi

Patent Assignee

Mitsubishi Kasei Vinyl K. K., Japan

Publication Source

Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN

JKXXAF

Patent Information

JP 63017940 A2 **880125** Showa

Application Information

JP 86-162786 860710

Abstract

PVC moldings coated with a mixt. of F-contg. unsatd. ester-F-free compd. copolymers and acrylic polymers with glass transition temp. (Tg) 40-80° have good resistances to bleeding, dusting, staining, and water and are useful in prepg. floor or wall tiles, desk mats, wire covers, etc. Thus, a 0.3-mm PVC sheet (contg. 50 phr DOP) was coated with a mixt. of 10 parts F-contg. polymer (Modiper F310) and 90 parts acrylic polymer (Tg 72°, prepd. from Bu methacrylate 28, 2-hydroxyethyl methacrylate 10, methacrylic acid 2, and Me methacrylate 60 parts) in MEK (solids content 20%) and dried 1 min at 130° to give a 3 g/m2 water-resistant coated sheet having good stain resistance (to lipsticks and magic inks) and bleeding of plasticizers (48 h at 60°) 11 mg/100 cm2, vs. bad and 71, resp., for a sheet without the **coating**.

International Patent Classification

International Patent Classification, Main

C08J007-04

International Patent Classification, Secondary

B32B027-28; C09D003-81

Document Type

Patent

Language

Japanese

Supplementary Indexing

nonstaining surface coated PVC molding; **fluoropolymer** acrylic polymer blend **coating**; water resistance coated PVC molding; nonbleeding acrylic coated PVC molding

IT Related Fields

Indexing

CAplus Answer Number 106 - © 1997 ACS

Title

Coating compositions for **poly(vinyl chloride)**

Inventor Name

Oshibe, Yoshihiro; Ishigaki, Hideyo; Omura, Hiroshi; Aoshima, Kazuhito; Yamamoto, Takashi

Patent Assignee

Nippon Oils and Fats Co., Ltd., Japan

Publication Source

Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN

JKXXAF

Patent Information

JP 62275136 A2 **871130** Showa

Application Information

JP 86-117572 860523

Abstract

Coatings preventing the migration of plasticizers in PVC contain block copolymers which consist of **fluoropolymers** having perfluoroalkyl groups and N-methylol groups and polymers having good adhesion to PVC. Thus, Me methacrylate was polymd. in MEK contg. [-CO(CH2)4CO2(C2H4O)3CO(CH2)4CO2O-]10 and copolymd. with CH2:CHCO2C2H4(CF2)7CF3, N-methylolacrylamide, and Et acrylate in soln. to prep. a polymer for **coating** on a PVC film contg. DOP.

International Patent Classification

International Patent Classification, Main

C08J007-04

International Patent Classification, Secondary

C09D003-727

Document Type

Patent

Language

Japanese

Supplementary Indexing

PVC plasticizer film **coating**; migration plasticizer prevention **coating**; fluoro acrylic block polymer

IT Related Fields

Indexing

Concept Group

Concept Heading

Plasticizers

CAplus Answer Number 110 - © 1997 ACS

Title

Coating of vinyl chloride polymer moldings

Inventor Name

Ohayashi, Atsushi; Arai, Hiromi; Miyoshi, Motoyuki

Patent Assignee

Mitsubishi Kasei Vinyl K. K., Japan

Publication Source

Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN

JKXXAF

Patent Information

JP 62169641 A2 870725 Showa

Application Information

JP 86-11259 860122

Abstract

Vinyl chloride polymer moldings are coated with a blend of CH2:CF2 polymers and copolymes of F-contg. unsatd. esters with F-free monomersa for increased stain and water resistance and prevention of plasticizer migration. A 0.3-mm plasticized PVC film coated with 3 g/m2 5:95 blend of block **fluoropolymer** (Modiper F100) and C3F6-C2F4-CH2:CF2 copolymer had good stain and water resistance and plasticizer migration 21 mg/100 cm2; vs. poor and 66, resp., when coated with an acrylic resin.

International Patent Classification

International Patent Classification, Main

B32B027-30

International Patent Classification, Secondary

B32B027-30

Document Type

Patent

Language

Japanese

Supplementary Indexing

fluoropolymer coating PVC film; vinylidene fluoride polymer **coating**; stain resistance **coating** PVC; water resistance **coating** PVC; plasticizer migration prevention PVC; hexafluoropropylene copolymer **coating**; tetrafluoroethylene copolymer **coating**

IT Related Fields

Indexing

Concept Group

Concept Heading

CAplus Answer Number 6 - © 1997 ACS

Title

Fluorine-containing acrylic **coating** compositions

Inventor Name

Enomoto, Masaho; Nishioka, Shotaro

Patent Assignee

Seiko Kasei Kk, Japan

Publication Source

Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN

JKXXAF

Patent Information

JP 04363370 A2 **921216** Heisei

Application Information

JP 91-42675 910213

Abstract

Title antisoiling compns. useful for PVC-faced articles, comprise acrylic copolymers with av. mol. wt. 100,000-1,000,000 obtained by the suspension-polymn. of a mixt. of Me methacrylate 60-90, F-contg. .alpha.,.beta.-ethylenic unsatd. monomers 2-20, and other monomers 8-20% in the presence of an initiator and an org. solvent, and optionally other polymers. Thus, a 10% soln. of 2-ethylhexyl methacrylate-2-hydroxypropyl methacrylate-Me methacrylate-2,2,2-trifluoroethyl methacrylate copolymer (initial monomer ratio 5:5:80:10, no. av. mol. wt. 478,000) in MEK/toluene was applied to a PVC sheet and dried at 120° to give a flexible coated sheet with good antisoiling property.

International Patent Classification

International Patent Classification, Main

C09D133-12

International Patent Classification, Secondary

C09D133-16

Document Type

Patent

Language

Japanese

Supplementary Indexing

fluorine acrylic **coating** antistaining flexibility; PVC substrate acrylic antistaining **coating**

IT Related Fields

Indexing

Concept Group

Concept Heading

CAplus Answer Number 30 - © 1997 ACS

Title

Coatings resistant to microorganisms

Inventor Name

Schindler, Fritz; Hill, Frank F.

Patent Assignee

Huels Ag, Germany

Publication Source

Ger. Offen., 6 pp.

CODEN

GWXXBX

Patent Information

DE 19535729 A1 970327

Application Information

DE 95-19535729 950926

Abstract

The title **coatings**, esp. resistant to bacteria and fungi, contain silanes, fluoroorganosilanes, and/or their hydrolysis or condensation products. An Al foil was coated with a (1H,1H,2H,2H-perfluorooctyl)triethoxysilane-based **coating** compn. to give a **coating** which, when inoculated with Staphylococcus epidermis and incubated at 37° for 3 days, showed <0.01% surface contamination; vs. 10% for uncoated Al and 30% for plasticized **PVC**.

International Patent Classification

International Patent Classification, Main

C09D005-14

International Patent Classification, Secondary

C09D183-04; C09D185-00; B05D005-00; A61L027-00; A61L002-00; A61B017-00; A61B001-00; A61C001-00

Document Type

Patent

Language

German

Accession Number

1997:331955

Reference Number

126:306429

CAplus Answer Number 38 - © 1997 ACS

Title

Formation of soilproof water-based **fluoropolymer** dispersion **coatings** on substrates with poor heat resistance

Inventor Name

Hidaka, Hiroyuki; Suzuki, Yasuyuki

Patent Assignee

Dainippon Ink & Chemicals, Japan

Publication Source

Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN

JKXXAF

Patent Information

JP 08283654 A2 961029 Heisei

Application Information

JP 95-93563 950419

Abstract

Water-based **fluoropolymer** dispersions, which are prepd. by polymg. perfluoroalkyl-substituted ethylenic unsatd. monomers optionally with polymerizable ethylenic unsatd. monomers in the presence of self-dispersing polyurethanes, are applied on non-heat-resistant substrates and dried at 50-100° to give soilproof **coatings**. The perfluoroalkyl-substituted monomers may be RfAOC(O)CR1:CH2 (Rf = C4-20 perfluoroalkyl; R1 = H, Me; A = Q, CONR2Q, SO2NR2Q; Q = C1-10 alkylene; R2 = C1-4 alkyl). Thus, adipic acid-1,4-butanediol (I) copolymer 721, I 13.6, dimethylolpropionic acid 65.6, isophorone diisocyanate 300, and hexamethylenediamine 36.5 parts were polymd. in water to give a 25%-solids self-dispersing polyurethane, 360 parts of which with water was blended with a mixt. of perfluoroalkyl-substituted ethylenic monomer polymer 190, Me methacrylate 15, 2-hydroxyethyl methacrylate 3, N-methylolacrylamide 2, lauryl mercaptan 2, and Me2CO 100 parts, emulsified, mixed with ammonium persulfate, and polymd. to give a stable dispersion. The dispersion was applied on a soft **PVC** film and dried at 60° for 5 min to give a **coating** showing water contact angle 115° and complete removal of tobacco stain on the surface by wiping with paper.

International Patent Classification

International Patent Classification, Main

C09D151-08

International Patent Classification, Secondary

B05D005-00; C08F002-16; C08F002-44; C08F283-00

Document Type

Patent

CAplus Answer Number 44 - © 1997 ACS

Title

Waterproofing fluorine-containing acrylic **coating** compositions and their coated substrates

Inventor Name

Ito, Katsuji; Yamauchi, Masaru

Patent Assignee

Asahi Glass Co Ltd, Japan

Publication Source

Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN

JKXXAF

Patent Information

JP 08259877 A2 961008 Heisei

Application Information

JP 95-66408 950324

Abstract

The compns. giving waterproofing films to glass, metals, woods, plastics, **PVC** substrates, etc., contain (A) polymers contg. units of acrylates having F-contg. alc. residues and/or methacrylates having F-contg. alc. residues, (B) .gtoreq.1 polymers selected from polyurethanes free of NCO, copolymers contg. units of hydrophilic macromonomers and F-contg. olefins, and polymers contg. units of F-free acrylic acid esters and/or F-free methacrylic acid esters, and (C) .gtoreq.1 resins selected from amino resins, NCO-contg. polyurethanes, and polymers having oxazoline residues. Substrates having cured films of the compns. are also claimed. Thus, 38.0 parts CF2CFCl was fed to a reactor contg. Et vinyl ether 22.1, hydroxybutyl vinyl ether 1.5, and CH2:CHOCH2CH2(CH2CH2O)nH 4.5 parts in H2O contg. polyethylene glycol monolauryl ether, K2CO3, NaHSO3, and ammonium persulfate and allowed to react for 12 h at 30° in vacuo to give an aq. dispersion of a polymer with particle diam. 0.15 .mu.m and no.-av. mol. wt. .apprx.500. A mixt. of (a) 25 parts 20%-solid aq. dispersion contg. a copolymer of 70 parts CH2:CHCO2CH2CH2(CF2)kCF3 (k= 5-13, av. 8) and 30 parts vinyl chloride, (b) 10 parts (as solid) the obtained polymer dispersion (solid 50%), and (c) 6 parts Sumitex Resin M 3 (melamin resin) were blended with H2O to give a 20%-solid compn., which was cast on an Al plate at 2 .+-. 0.5° and 75 .+-. 3% and heated for 30 min at 140° to give test pieces with pencil hardness 3H, no crack by bending test, and contact angle 95°.

International Patent Classification

International Patent Classification, Main

C09D127-12

International Patent Classification, Secondary

C08L033-16; C08L039-04; C09D133-16; C09D139-04; C09D161-20; C09D175-04; C09K003-18

Document Type

CAplus Answer Number 73 - © 1997 ACS

Title

Coating compositions for soft substrates

Inventor Name

Nishiwaki, Koichi; Ito, Nobuyuki; Someya, Hiroshi; Kobayashi, Katsuo; Tsucha, Hiroshi

Patent Assignee

Japan Synthetic Rubber Co Ltd, Japan; Dainippon Shikizai Kogyo Kk

Publication Source

Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN

JKXXAF

Patent Information

JP 07238252 A2 950912 Heisei

Application Information

JP 94-52990 940225

Abstract

The title compns. with weatherability, stainproof property, and adhesion, esp. useful for **PVC**, contain (A) 100 parts mixts. of 60-80 parts 60-75:24-40:0-20 wt.% vinylidene fluoride (I)-tetrafluoroethylene (II)-hexafluoropropylene (III) copolymer and 40-20 parts NCO-contg. acrylic polymers contg. .gtoreq.85% Me methacrylate (IV) and (B) 100-500 parts C3-5 ketone solvents. Thus, a **coating** comprising 62:23:15 I-II-III copolymer 17, 73:27 I-II copolymer 4, IV-isocyanatoethyl acrylate-Bu acrylate copolymer 40%-solid MIBK soln. 22.5, MeO(OEt)3 1, 2-hydroxy-4-octoxybenzophenone 1, MIBK 20, MEK 30, and acetone 6.5 parts was applied to a **PVC** film contg. 35% dioctyl phthalate and dried at 100°.

International Patent Classification

International Patent Classification, Main

C09D127-16

International Patent Classification, Secondary

C09D133-12

Document Type

Patent

Language

Japanese

Supplementary Indexing

fluoropolymer isocyanate acrylic polymer **coating**; **PVC** soft film adhesion **fluoropolymer coating**

IT Related Fields

Indexing

Concept Group

CAplus Answer Number 81 - © 1997 ACS

Title

Surface-protective films with ultraviolet shielding properties

Inventor Name

Seki, Shigemi; Ueda, Tomoaki; Yamaoka, Midori

Patent Assignee

Toray Industries, Japan; Tore Gosei Fuirumu Kk

Publication Source

Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN

JKXXAF

Patent Information

JP 07148896 A2 950613 Heisei

Application Information

JP 93-298076 931129

Abstract

The title films have a **fluoropolymer** layer successively coated with UV-absorbing acrylic polymer layers and heat-sealable polymer layers. Thus, **coating** ULS-935LH (UV-absorbing acrylic polymer) on an ethylene-tetrafluoroethylene copolymer film and **coating** Acrypet MD on top gave a surface-protective film showing good UV shielding and heat lamination properties and durability.

International Patent Classification

International Patent Classification, Main

B32B027-30

International Patent Classification, Secondary

B32B027-30; B32B009-00; B32B021-08; B32B027-08; B32B027-16; B32B027-18

Document Type

Patent

Language

Japanese

Supplementary Indexing

surface protective film UV shield; acrylic polymer UV protective film

IT Related Fields

Indexing

Concept Group

Concept Heading

Plastics, film

Role

PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

Title

Fluoropolymer compositions containing acrylic resins for **coatings**

Inventor Name

Horibatake, Tomonori; Ishikawa, Satoshi

Patent Assignee

Japan Synthetic Rubber Co Ltd, Japan

Publication Source

Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN

JKXXAF

Patent Information

JP 07053822 A2 950228 Heisei

Application Information

JP 93-219048 930811

Abstract

Title compns., providing **coatings** with improved weatherability and resistance to hot water and flex, contain dissolved (A) vinylidene fluoride (I)-tetrafluoroethylene (II) copolymer, (B) I-II-hexafluoropropylene (III) copolymer, and (C) acrylic resins including .gtoreq.50% Me methacrylate (IV) at (A + B)/C = 30/70-90/10. Thus, 50:50 I-II copolymer 30, 60:30:10 I-II-III copolymer 30, and 97.7:2.7 IV-methacrylic acid copolymer 40 parts were dissolved in 200 parts 50:50 mixt. of Me iso-Bu ketone and AcOEt to give title compn., 100 g of which was mixed with 20 g CR 97 and 1 g an amine dispersant, applied onto an Al plate, and dried at room temp. for 7 days to give a test piece showing good retention of initial gloss after 30 days in water at 50° and after 3000-h exposure to sunshine weather-O-meter.

International Patent Classification

International Patent Classification, Main

C08L027-12

International Patent Classification, Secondary

C08L027-12; C08L033-12; C09D127-12; C09D133-12

Document Type

Patent

Language

Japanese

Supplementary Indexing

fluoro polymer acrylic resin **coating**; compatibility **fluoropolymer** acrylic resin **coating**; gloss **fluoropolymer** acrylic resin **coating**; hot water resistance **fluoropolymer coating**; flex resistance **fluoropolymer** blend **coating**; vinylidene fluoride copolymer blend **coating**; fluoroethylene copolymer blend **coating**; fluoropropylene copolymer blend **coating**; methyl methacrylate

CAplus Answer Number 96 - © 1997 ACS

Title

Soil- and weather-resistant film-coated soft **vinyl chloride resin** articles

Inventor Name

Sawada, Hiroyuki; Marumoto, Etsuzo; Nishio, Tatsuo; Iida, Akihito; Inukai, Hiroshi

Patent Assignee

Toa Gosei Chem Ind, Japan

Publication Source

Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN

JKXXAF

Patent Information

JP 06287334 A2 **941011** Heisei

Application Information

JP 93-95227 930330

Abstract

Title protective films are prepd. from compns. contg. 10-25:75-90 mol% ClCF3-vinylidene fluoride copolymer (I), (meth)acrylate ester resins with glass-transition temp. of .gtoreq.60°, and 1-20% (based on total polymers) benzophenones and/or benzotriazoles. A plasticized **PVC** sheet was coated with a soln. contg. I 25, PMMA 75, and Mark 1413 10 parts to form a sheet showing good blocking, soil, weather, and plasticizer migration resistance.

International Patent Classification

International Patent Classification, Main

C08J007-04

International Patent Classification, Secondary

C08K005-01; C08L027-16; C08L033-08

Document Type

Patent

Language

Japanese

Supplementary Indexing

mulch **PVC** antisoiling **coating**; **fluoropolymer** PMMA antisoiling **coating PVC**

IT Related Fields

Indexing

Concept Group

Concept Heading

Mulches

Text Modification

(UV absorber-contg. poly(meth)acrylate- and chlorotrifluoroethylene-vinylidene fluoride copolymer-based **coatings** for **PVC** sheets)

IT Related Fields

CAplus Answer Number 102 - © 1997 ACS

Title

Coated thermoplastic resin sheets and the **coating** compositions

Inventor Name

Miura, Ryuichi; Yoneyama, Teru; Takayanagi, Takashi

Patent Assignee

Asahi Glass Co Ltd, Japan

Publication Source

Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN

JKXXAF

Patent Information

JP 06073330 A2 **940315** Heisei

Application Information

JP 92-266691 920909

Priority Application Information

JP 92-190088 920624

Abstract

The resin sheets are coated with compns. consisting of (1) carboxyl group-contg. **fluoropolymers** with acid value 10-150 mg KOH/g, (2) carboxyl group-contg. acrylic polymers which are compatible with the **fluoropolymers** and have acid value 10-150 mg KOH/g, and (3) 0.1-30 phr Al chelates. A soft poly(vinyl chloride) sheet was coated with a compn. contg. (1) 50 parts of a hexahydrophthalic anhydride-modified 39.4:48.1:12.5 copolymer of Bu vinyl ether, tetrafluoroethylene and .omega.-hydroxybutyl vinyl ether, (2) 50 parts of a 6:2:2 copolymer of iso-Bu methacrylate, Bu methacrylate and methacrylic acid, and (3) 20 parts Alumichelate D. The **coating** was storage-stable and had good adhesion, weather resistance, blocking resistance and weldability.

International Patent Classification

International Patent Classification, Main

C09D133-16

International Patent Classification, Secondary

C09D133-16; C08J007-04; C09D127-12

Document Type

Patent

Language

Japanese

Supplementary Indexing

thermoplastic resin sheet **coating**; **fluoropolymer** acrylic polymer **coating**; aluminum chelate **coating** thermoplastic

IT Related Fields

Indexing

CAplus Answer Number 113 - © 1997 ACS

Title

Coating materials for plastic films

Inventor Name

Beer, Ekkehard; Kochem, Karl Heinz; Schmidt, Michael

Patent Assignee

Hoechst A.-G., Germany

Publication Source

Eur. Pat. Appl., 7 pp.

CODEN

EPXXDW

Patent Information

EP 554798 A2 930811

Designated State

R: DE, FR, GB, IT, LU, NL

Application Information

EP 93-101357 930129

Priority Application Information

DE 92-4203208 920205

Abstract

The title materials comprise an intrinsically conductive polymer and .gtoreq.1 additives which act to prevent strong adhesion of metal films which are subsequently formed on the plastic films. Use of the coated films for transfer metalization is described. The **coatings** serve both as release films and to dissipate static charges developed during the transfer process.

International Patent Classification

International Patent Classification, Main

H01B001-12

International Patent Classification, Secondary

C08G061-12; C09D005-24

Document Type

Patent

Language

German

Supplementary Indexing

transfer metalization film antistatic release layer; plastic film antistatic release layer; polymer conductor antistatic release layer

IT Related Fields

Indexing

Concept Group

CAplus Answer Number 120 - © 1997 ACS

Title

Coating materials on automobile part moldings

Inventor Name

Nagata, Kazuto; Oohayashi, Atsushi

Patent Assignee

Mitsubishi Kasei Vinyl, Japan

Publication Source

Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN

JKXXAF

Patent Information

JP 05185570 A2 930727 Heisei

Application Information

JP 92-5174 920114

Abstract

Coatings for the prevention of degrdn. by falling ash on **vinyl chloride resin** moldings comprise copolymers of acrylic monomers with perfluoroalkyl group-contg. acrylic monomers, acrylic copolymers contg. no F, and vinylidene fluoride resins. Thus, a **PVC** part was coated with 50:30:5:15 Me methacrylate (I)-Bu methacrylate (II)-CHF2CF2CH2OCOCMe:CH2-C8F17(CH2)2OCOCMe:CH2 copolymer, 60:30:10 I-II-Et acrylate copolymer, and Kynar ADS in solids ratio 15:5:80 to form a weather resistant **coating**.

International Patent Classification

International Patent Classification, Main

B32B027-30

International Patent Classification, Secondary

B32B027-30; B60J011-00

Document Type

Patent

Language

Japanese

Supplementary Indexing

PVC automobile part **coating**; acrylic polymer **coating PVC**; **fluoropolymer coating PVC**; weather resistant **coating** automobile part

IT Related Fields

Indexing

Concept Group

Concept Heading

Fluoropolymers

CAplus Answer Number 129 - © 1997 ACS

Title

PVC resin moldings with curable **fluoropolymer coatings**

Inventor Name

Iida, Akihito; Nishio, Tatsuo; Koyama, Masanobu; Marumoto, Etsuzo

Patent Assignee

Toa Gosei Chemical Industry Co., Ltd., Japan

Publication Source

Jpn. Kokai Tokkyo Koho, 3 pp.

CODEN

JKXXAF

Patent Information

JP 04345842 A2 **921201** Heisei

Application Information

JP 91-146860 910522

Abstract

The moldings are coated with compns. contg. curing agents and copolymers of fluoroolefin 30-60 mol%, hydroxyalkyl crotonate 3-30 mol%, and optionally other vinyl monomer .ltoreq.67 mol%. Thus, a curing agent Coronate EH and chlorotrifluoroethylene-Et vinyl ether-2-hydroxyethyl crotonate-vinyl pivalate copolymer were mixed with a UV-absorbent and then coated on rigid **PVC** to give a sheet with good weather-resistance.

International Patent Classification

International Patent Classification, Main

B32B027-30

International Patent Classification, Secondary

B32B007-02; B32B027-08; C08J007-04; C09D127-12

Document Type

Patent

Language

Japanese

Supplementary Indexing

PVC molding curable **fluoropolymer coating**; weather resistant **coating fluoropolymer PVC**; curing agent **fluoropolymer** weather resistant **coating**

IT Related Fields

Indexing

Concept Group

Concept Heading

Crosslinking agents

Text Modification

CAplus Answer Number 132 - © 1997 ACS

Title

Manufacture of coated **vinyl chloride resin** sheets and **coating** compositions

Inventor Name

Miura, Ryuichi; Yoneyama, Teru

Patent Assignee

Asahi Glass Co., Ltd., Japan

Publication Source

Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN

JKXXAF

Patent Information

JP 04218539 A2 **920810** Heisei

Application Information

JP 90-412091 901219

Abstract

Antiblocking **vinyl chloride resin** sheets are manufd. by **coating** the sheets with compns. contg. (A) **fluoropolymers** having active H-contg. crosslinking groups, (B) acrylic copolymers miscible with A, (C) polyisocyanate crosslinking agents, and (D) 0.001-5% (based on A + B) amines or their salts with low catalytic activity at room temp. but high activity at 40-200°, drying at 40-200° for 5 s to 20 min, and winding. Thus, a flexible **PVC** sheet was coated with a compn. contg. n-Bu vinyl ether-hydroxybutyl vinyl ether-tetrafluoroethylene copolymer 50, Bu acrylate-2-hydroxyethyl methacrylate-iso-Bu methacrylate copolymer 50, MEK 100, Coronate EH 15, and Ucat SA No. 1 (DBU phenol salt) 0.25 part, dried at 100° for 30 s, wound, and stored 24 h to give a coated **PVC** film showing no blocking.

International Patent Classification

International Patent Classification, Main

C08J007-04

International Patent Classification, Secondary

B05D007-02; B05D007-24; B32B027-30; C09D175-00

Document Type

Patent

Language

Japanese

Supplementary Indexing

antiblocking **coating** acrylic polymer; **PVC** film **coating** antiblocking **fluoropolymer**; polyisocyanate hardener **coating** antiblocking; amine crosslinking catalyst antiblocking **coating**

IT Related Fields

Indexing

CAplus Answer Number 137 - © 1997 ACS

Title

Vinyl chloride polymer-coated fabrics

Inventor Name

Sakobe, Tadayuki; Yamamoto, Sachiyo

Patent Assignee

Unitika Ltd., Japan

Publication Source

Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN

JKXXAF

Patent Information

JP 04245976 A2 920902 Heisei

Application Information

JP 91-32237 910131

Abstract

Title fabrics, with good washfast soiling and water resistance and useful for coverings and tents, are coated first with vinyl chloride polymers and then with solvent-based crosslinked **fluoropolymers** mainly consisting of alkyl vinyl ether-fluoroolefin copolymers. Thus, a plain weave polyester fabric was coated on both sides by topping with a compn. of **PVC**, DOP, CaCO3, Zn stearate, and pigment, baked at 180°, then coated with a compn. of Fluorotop FT 1030 (fluoroolefin-alkyl vinyl ether copolymer) and isocyanate-contg. Fluorotop curing agent, dried at 80°, and crosslinked at 130°.

International Patent Classification

International Patent Classification, Main

D06M015-347

International Patent Classification, Secondary

C09D127-12; D06M015-256

Document Type

Patent

Language

Japanese

Supplementary Indexing

PVC fluoropolymer antisoiling **coating** fabric; fluoroolefin alkyl vinyl ether copolymer; crosslinking **fluoropolymer coating** fabric; polyester fabric **coating** antisoiling; water resistance

PVC fluoropolymer coating

IT Related Fields

Indexing

Concept Group

CAplus Answer Number 143 - © 1997 ACS

Title

Photocurable, fluorine-containing polyurethane acrylate **coating** compositions

Inventor Name

Takamatsu, Yukishige; Niimoto, Masaki; Sato, Mitsuo

Patent Assignee

Mitsubishi Rayon K. K., Japan

Publication Source

Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN

JKXXAF

Patent Information

JP 04093317 A2 920326 Heisei

Application Information

JP 90-209675 900808

Abstract

The title compns. contain .gtoreq.30% compns. prepd. from polyisocyanates, F-contg. diols, and unsatd. alcs. Thus, **coating** a mixt. of urethane acrylate (prepd. from 2 mol 2:1 2,4-diisocyanato-1-methylcyclohexane-diethylene glycol (I) adduct (II) with 1 mol H(CF2)4CH2OCH2CH(OH)CH2OH and 2 mol 2-hydroxyethyl acrylate (III)) 70, 1,6-hexanediol diacrylate 10, urethane oligomer (prepd. from II 1.2, I 1, and III 0.4 mol) 20, and photoinitiator 3 parts on **PVC** and curing with UV light gave **coatings** with good weather and solvent resistance and oil and water repellency.

International Patent Classification

International Patent Classification, Main

C08G018-67

International Patent Classification, Secondary

C08F299-02; C08G018-38

Document Type

Patent

Language

Japanese

Supplementary Indexing

fluorinated polyurethane acrylate **coating**; photocurable **fluoropolymer** acrylate **coating**; weather resistance **coating**; **PVC coating** photocurable; hydroxyethyl acrylate polyurethane **coating**

IT Related Fields

Indexing

Concept Group

Concept Heading

Title

Soilproofing of **vinyl chloride resin**-finished wallpaper

Inventor Name

Otoshi, Yukio; Sano, Mikihiko

Patent Assignee

Asahi Glass Co., Ltd., Japan

Publication Source

Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN

JKXXAF

Patent Information

JP 03275859 A2 **911206** Heisei

Application Information

JP 90-71826 900323

Abstract

Fluorooligomers are added to **vinyl chloride resin** finishes for wallpaper to prevent soiling. Thus, a **PVC** plastisol contg. 1% 50:50 perfluorooctylethyl acrylate-benzyl methacrylate copolymer (I) was coated onto wallpaper to give a sample that exhibited gloss retention 92% after a soiling test, compared with 63 without I.

International Patent Classification

International Patent Classification, Main

E04F013-00

International Patent Classification, Secondary

C08F020-22; C08L029-04

Document Type

Patent

Language

Japanese

Supplementary Indexing

fluoropolymer soilproofing **PVC** coated wallpaper; fluorooctylethyl acrylate copolymer soilproofing agent; benzyl methacryate **fluoropolymer** soilproofing agent

IT Related Fields

Indexing

Concept Group

Concept Heading

Coating materials

Text Modification

(**PVC**, contg. fluorooligomer soil proofing agents, for wallpaper)

CAplus Answer Number 157 - © 1997 ACS

Title

Weather resistant **coatings** for flexible substrates

Inventor Name

Hsu, Chih Chung; Ree, Buren R.

Patent Assignee

Minnesota Mining and Mfg. Co., USA

Publication Source

Eur. Pat. Appl., 6 pp.

CODEN

EPXXDW

Patent Information

EP 467570 A2 920122

Designated State

R: CH, DE, DK, ES, FR, GB, IT, LI

Application Information

EP 91-306141 910705

Priority Application Information

US 90-548857 900706

Abstract

The title **coatings**, resisting dirt and stains and useful in outdoor graphics, contain 25-60% 40-80:60-20 vinylidene fluoride (I)-fluorinated comonomer copolymers and 75-40% Me methacrylate (II) polymer. A mixt. of 1 part 25% xylene soln. of II polymer and 2.5 parts 10% MIBK soln. of I-C2ClF3 copolymer contg. 3% each UV absorber and hindered amine light stabilizer was coated on plasticized **PVC** and heated 2 min at 150° F and 3 min at 280° F to give a **coating** resisting dirt, stains, and discoloration in outdoor exposure.

International Patent Classification

International Patent Classification, Main

C08J007-04

International Patent Classification, Secondary

C09D127-12; C09D133-12

Document Type

Patent

Language

English

Supplementary Indexing

weather resistance **coating**; soil resistance **coating**; **PVC coating** weather resistance; methacrylate polymer blend **coating**; vinylidene fluoride copolymer **coating**; chlorotrifluoroethylene copolymer **coating**; **fluoropolymer** blend **coating**

CAplus Answer Number 163 - © 1997 ACS

Title

Fluoropolymer coatings

Inventor Name

Kawashima, Chikafumi; Yoshida, Seiichi

Patent Assignee

Central Glass Co., Ltd., Japan

Publication Source

Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN

JKXXAF

Patent Information

JP 03182538 A2 910808 Heisei

Application Information

JP 89-323141 891213

Abstract

Title **coatings**, antistaining with good flexibility and useful for plasticized **vinyl chloride resins**, comprise a mixt. of an org. soln. of flexible **fluoropolymers** obtained by grafting 20-80 parts vinylidene fluoride to 100 parts fluoroelastomers with glass transition temp. (Tg) below ambient temp. composed of .gtoreq.1 F-contg. monomer and double bond- and peroxy linkage-contg. monomer and an org. soln. of polyurethanes with Tg .ltoreq.40° at **fluoropolymer**/polyurethane = 100/5 - 100/70. Thus, a DMF soln. of vinylidene fluoride-grafted chlorotrifluoroethylene-vinylidene fluoride copolymer and an MEK soln. of Nippollan 3110 (polyurethane with Tg -30°) were mixed at resin ratio 100/7.7, applied to a 0.5 mm-thick plasticized **PVC**/polyester cloth composite membrane, and dried at 100° to form a 10 .mu.m-thick film with good adhesion (100/100), good staining resistance (by visual inspection after 2-mo outdoor exposure), and crease recovery (JIS L 1096) 92%.

International Patent Classification

International Patent Classification, Main

C08L027-12

International Patent Classification, Secondary

C09D127-16

Document Type

Patent

Language

Japanese

Supplementary Indexing

fluoropolymer polyurethane antistaining flexibility **coating**; graft **fluoropolymer** polyurethane **coating**; **PVC** plasticized **fluoropolymer** polyurethane **coating**

CAplus Answer Number 171 - © 1997 ACS

Title

Manufacture of weather-resistant **PVC** sheets

Inventor Name

Minemoto, Yasunobu

Patent Assignee

Asahi Glass Co., Ltd., Japan

Publication Source

Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN

JKXXAF

Patent Information

JP 03124439 A2 **910528** Heisei

Application Information

JP 89-263100 891011

Abstract

Title sheets are prepd. by **coating PVC** sheets with blends of crosslinked F-contg. copolymers and compatible acrylic copolymers and hot pressing together with other **PVC** sheets to form laminated sheets with a coated surface layer. Thus, 0.2-mm **PVC** sheet was coated (20 .mu.m) with a 50:50 blend of 55:12:15:18 chlorotrifluoroethylene-cyclohexyl vinyl ether-Et vinyl ether-hydroxybutyl vinyl ether copolymer and 25:60:15 Me methacrylate-iso-Bu methacrylate-hydroxyethyl methacrylate copolymer contg. Coronate C 2507 crosslinking agent, and 6 noncoated **PVC** sheets were sandwiched beteen two of the coated sheet and pressed at 160° and 30 kg/cm2 for 10 min to give a 3-mm sheet with tensile strength 700 and 680 kg/cm2, elongation 90 and 86%, and falling impact strength 60 and 55 kg-cm, resp., before and after a exposure to a sunshine weatherometer for 2000 h, vs. 700 and 500, 90 and 30, and 60 and 20, resp., without the **coating**.

International Patent Classification

International Patent Classification, Main

B32B027-30

Document Type

Patent

Language

Japanese

Supplementary Indexing

PVC sheet weather resistance; **fluoropolymer coating PVC** sheet; acrylic polymer **coating PVC** sheet; methacrylate copolymer **coating PVC** sheet

IT Related Fields

Indexing

CAplus Answer Number 177 - © 1997 ACS

Title

Plasticized PVC sheets with weather- and soil-resistant layers

Inventor Name

Takayanagi, Takashi; Miyazaki, Nobuyuki

Patent Assignee

Asahi Glass Co., Ltd., Japan

Publication Source

Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN

JKXXAF

Patent Information

JP 02299839 A2 901212 Heisei

Application Information

JP 89-118782 890515

Abstract

The title sheets have layers prepd. from compatible blends of partly crosslinked **fluoropolymers**, acrylic polymers, and optionally fluoroalkyl group-contg. acrylic polymers. Thus, a mixt. of 39.4:12.5:48.1 Bu vinyl ether-.omega.-hydroxybutyl vinyl ether-tetrafluoroethylene copolymer (I) 50, 2:1:7 Bu acrylate-2-hydroxyethyl methacrylate-iso-Bu methacrylate copolymer (II) 50, xylene 100, an isocyanate hardener 15, and a benzophenone-deriv. UV absorber 10 parts was applied to 15 .mu.m (dry) on a molding, air dried, and cured 2 min at 80° to give a layer having, after placed 1000 h in Sunshine Weatherometer, crosscut adhesion 100/100 and color change 0.9, vs. 0/100 and 1.1, resp., for a layer without II, and 0/100 and 7, resp., for a layer without I.

International Patent Classification

International Patent Classification, Main

B32B027-30

International Patent Classification, Secondary

B32B027-30

Document Type

Patent

Language

Japanese

Supplementary Indexing

fluoropolymer acrylic blend **coating** weatherability; soil resistance **fluoropolymer** acrylic **coating**

IT Related Fields

Indexing

Concept Group

Concept Heading

CAplus Answer Number 180 - © 1997 ACS

Title

Weather-resistant protective films for vinyl fabrics

Inventor Name

Ocampo, Don Oliveros; Palmer, Emery A.

Patent Assignee

Rexham Corp., USA

Publication Source

PCT Int. Appl., 28 pp.

CODEN

PIXXD2

Patent Information

WO 9014393 A1 **901129**

Designated State

W: CA, JP

RW: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE

Application Information

WO 90-US2821 900517

Priority Application Information

US 89-354814 890522

Abstract

The title films comprise acrylic polymers and **fluoropolymers** and have compn. gradient across the film thickness such that one side of the films is **fluoropolymer**-rich to provide good stain and weather resistance and the opposite sides of the films is acrylic polymer-rich to provide self-bonding ability. Thus, a PET film was spread with a compn. of tetrafluoroethylene (I)-vinylidene fluoride (II) copolymer 21.63, Me methacrylate-Et methacrylate copolymer (III) 7.21, MEK 70.96, a hindered amine light stabilizer (A) 0.10, and an UV screener (B) 0.10 part, dried at 120° F, spread with a compn. of I-II hexafluoropropene copolymer 10.31, III 19.16, MEK 68.17, A 1.18, and B 1.18 parts, and dried at 240° F to give a sheet, which was laminated on a vinyl outdoor awning fabric with the PET layer oriented outwardly by passing through a hot nip at 310° F and 50 psi and the PET film was stripped off to give a fabric with good adhesion to its protecting film and showing good weatherability.

International Patent Classification

C09D005-00; C09J007-02; D06M015-256

Document Type

Patent

Language

English

Supplementary Indexing

CAplus Answer Number 186 - © 1997 ACS

Title

Fluoropolymer solutions for **coatings**

Inventor Name

Kawashima, Chikafumi; Yoshida, Seiichi; Koshida, Toru

Patent Assignee

Central Glass Co., Ltd., Japan

Publication Source

Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN

JKXXAF

Patent Information

JP 02135269 A2 900524 Heisei

Application Information

JP 88-289562 881116

Abstract

Antistaining title solns. with good flexibility and resistance to chems., weather, and tackiness are mixts. of flexible **fluoropolymers** in polar solvents and Me methacrylate polymers in org. solvents and the **fluoropolymers** are prepd. by grafting 20-80 parts vinylidene fluoride (I) with 100 parts fluoro elastic copolymers (glass transition temp. .ltoreq. room. temp.) prepd. by copolymg. double bond- and peroxy bond-contg. monomers and .gtoreq.1 F-contg. monomers. Thus, 100 g I was graft polymd. with 144 g tert-butylperoxy allyl carbonate-chlorotrifluoroethylene-vinyl fluoride copolymer to give a resin, which was stirred with DMF. The resulting soln. was stirred with Acrypet MD in MEK to give a compn., which was applied on E 5 (a plasticized **PVC**/polyester cloth composite membrane) and dried to give a **coating** to show good stain resistance after a 2 mo-outdoor exposure, vs. poor for E 5 without **coating**.

International Patent Classification

International Patent Classification, Main

C09D127-12

International Patent Classification, Secondary

C09D151-00; C09D151-04

Document Type

Patent

Language

Japanese

Supplementary Indexing

methyl methacrylate **fluoropolymer coating** flexibility; antistaining methyl methacrylate **fluoropolymer coating**; chem resistance **fluoropolymer coating**; weather resistance **fluoropolymer coating**

CAplus Answer Number 190 - © 1997 ACS

Title

Decorative sheets for building materials

Inventor Name

Yamaguchi, Tetsuhisa

Patent Assignee

Dainippon Ink and Chemicals, Inc., Japan

Publication Source

Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN

JKXXAF

Patent Information

JP 02059338 A2 900228 Heisei

Application Information

JP 88-210039 880824

Abstract

The title sheets are prepd. by laminating protective layers, printed patterns, thermoplastic base layers, and fabrics with basis wt. 10-100 g/m2 and gas permeability 5-100 s. A decorative sheet was prepd. by **coating** a **PVC** sol on a polyester nonwoven textile (basis wt. 60 g/m2, gas permeability 70 s), gravure-printing the coated surface after drying, overlaying with a vinyl chloride-vinyl acetate copolymer-acrylic polymer mixt., embossing, and **coating** with a **fluoropolymer** (Fluorotop FT-200).

International Patent Classification

International Patent Classification, Main

B32B027-12

International Patent Classification, Secondary

B32B003-30; B32B027-30

Document Type

Patent

Language

Japanese

Supplementary Indexing

building material decorative laminate; polyester decorative laminate; **PVC** laminate decorative; acrylic polymer blend laminate; vinyl acetete copolymer laminate; **fluoropolymer coating** laminate decorative

IT Related Fields

Indexing

Concept Group

Concept Heading

CAplus Answer Number 192 - © 1997 ACS

Title

Coated **vinyl chloride resin** moldings

Inventor Name

Kuriyama, Satoshi; Nakajima, Shunichi

Patent Assignee

Sanyo Chemical Industries, Ltd., Japan

Publication Source

Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN

JKXXAF

Patent Information

JP 02081629 A2 900322 Heisei

Application Information

JP 88-234620 880919

Abstract

The title **coatings**, preventing blleding of additives, contain fluoroalkyl (meth)acrylate copolymers and polymers bearing hydrolyzable silyl groups in 1-50:99-50 ratio. A mixt. of 50% 40:58 CF3(CF2)7(CH2)2O2CCMe:CH2-Me methacrylate copolymer 5, 50% 25:18:30:25 Me methacrylate-styrene-2-ethylhexyl acrylate-3-(trimethoxysilyl)propyl methacrylate copolymer 55, catalyst 1, and PhMe 29 parts was coated (2 .mu. dry basis) on a 0.1-mm plasticized **PVC** film, aged 1 wk at room temp., and the coated film was used for a greenhouse cover with transparency 91 and 68% after 0 and 24 mo; vs. 91 and 5, resp., for an uncoated **PVC** film.

International Patent Classification

International Patent Classification, Main

B32B027-30

International Patent Classification, Secondary

B32B027-30; C08J007-04

Document Type

Patent

Language

Japanese

Supplementary Indexing

PVC coating migration prevention; **fluoropolymer coating PVC** film; silane deriv copolymer **coating**; greenhouse **PVC** film nonmigrating; methacrylate copolymer **coating PVC**; acrylate copolymer **coating PVC**; styrene copolymer **coating PVC**

IT Related Fields

Indexing

Concept Group

Concept Heading

Greenhouses

CAplus Answer Number 228 - © 1997 ACS

Title

Manufacture of soiling-resistant fabric laminates

Inventor Name

Yamagami, Toru; Azuma, Toshiyuki; Oku, Takehiro; Kawabata, Akira; Takagi, Hidenao

Patent Assignee

Kansai Hanpu Kagaku Bosui Co., Ltd., Japan

Publication Source

Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN

JKXXAF

Patent Information

JP 62249740 A2 871030 Showa

Application Information

JP 86-94330 860423

Abstract

The waterproof title laminates with **fluoropolymer** outermost layers contain an acrylic polymer adhesive layer under the outermost layer in the backside. Thus, polyester fabric (155 g/m2) both surfaces were coated with **PVC** (Vinychlon 3000M) (contg. plasticizers and additives), followed by laminating the front side with a composite film (50-.mu.) of **PVC** film (innermost), poly(Me methacrylate), and poly(vinylidene fluoride) at 160° and 4 kg/cm2 for 5 s. The back side of fabric was coated with mixt. of Acrypet MD (I)-**PVC**-MEK-PhMe (90:10:200:200) and mixt. of I-**fluoropolymer** (Neoflax FS-509)-MEK-PhMe (98:20:200:200) and heated for 1 min at 80° to give a soiling- and weather-resistant laminates suitable for hot-bonding fabrication.

International Patent Classification

International Patent Classification, Main

B32B027-12

International Patent Classification, Secondary

D06M015-00; D06M017-00; D06N003-04; E04H015-54

Document Type

Patent

Language

Japanese

Supplementary Indexing

methacrylate coated polyester fabric laminate; **PVC** coated polyester fabric laminate; polyvinylidene fluoride coated polyester laminate; acrylic polymer coated polyester laminate; **fluoropolymer** coated polyester fabric laminate; soiling resistant polyester fabric laminate

IT Related Fields

Indexing

CAplus Answer Number 256 - © 1997 ACS

Title

Coating on UV-absorbing films

Inventor Name

Omura, Akira; Takakura, Shigehiro

Patent Assignee

Nippon Carbide Industries Co., Inc., Japan

Publication Source

Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN

JKXXAF

Patent Information

JP 60245552 A2 **851205** Showa

Application Information

JP 84-100631 840521

Abstract

A UV-absorbing film is coated with a mixt. of a hydroxy-contg. **fluoropolymer** (no.-av. mol. wt. 30,000-50,000) comprising .gtoreq.70 mol % fluoroolefin, cyclohexyl vinyl ether, alkyl vinyl ether and hydroxyalkyl vinyl ether and a polyisocyanate at 0.9-1.2:1 mol ratio OH/NCO groups to prevent dust attraction and improve weather resistance. Thus, a 50-.mu. film from 95:5 PVC-Levaprene 450 blend contg. a polymeric plasticizer 20, a Ba-Zn stabilizer 1, Tinuvin 327 1.2, and a lubricant 0.3 phr was coated with a mixt. of a soln. of a copolymer (mol. wt. 32,000, OH value 48) from chlorotrifluoroethylene 50, cyclohexyl vinyl ether 15, iso-Bu vinyl ether 25, and hydroxybutyl vinyl ether 10% and hexamethylene diisocyanate at 1:1 mol ratio OH/NCO to a thickness of .apprx.10 .mu. (dry) to give a product exhibiting retention of light transmittance after 2 yr of outdoor exposure 82% and retention of UV absorber after 2500 h in a weatherometer 90%, compared with 50% and 70%, resp., for an uncoated film.

International Patent Classification

International Patent Classification, Main

B32B027-40

International Patent Classification, Secondary

C08J007-04

Document Type

Patent

Language

Japanese

Supplementary Indexing

chlorotrifluoroethylene copolymer **coating** **PVC** film; cyclohexyl vinyl ether copolymer **coating**; isobutyl vinyl ether copolymer **coating**; hydroxybutyl vinyl ether copolymer **coating**; ethylene

CAplus Answer Number 269 - © 1997 ACS

Title

Radiation-curable **coating** compositions

Patent Assignee

Dainichiseika Color and Chemicals Mfg. Co., Ltd., Japan

Publication Source

Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN

JKXXAF

Patent Information

JP 60094468 A2 850527 Showa

Application Information

JP 83-202804 831031

Abstract

The title compns., flexible and scratch-resistant, contain 60-99.9 parts radiation curable monomer or oligomer mixt. (5-100% with .gtoreq.3 functional groups) and 0.1-40 parts **fluoropolymer** powder or beads. Thus, a mixt. of TLP 10F1 (PTFE) [9002-84-0] (particle diam. 8-16 .mu.) 20, difunctional urethane acrylate (mol. wt. 1500-2000) 40, trimethylolpropane trimethacrylate (I) 20, and N-vinylpyrrolidone 20 parts (viscosity 500 cP at 25°) was coated on a **PVC** flooring sheet to 40 .mu. and electron beam-cured (50 Mrad) in 3 s to give a matte, semitransparent layer with Taber abrasion 2.5 mg (1000 cycles, 500 g), compared with 12 mg with tripropylene glycol dimethacrylate in place of I.

International Patent Classification

International Patent Classification, Main

C09D005-00

International Patent Classification, Secondary

C08J007-04; C09D003-58; C09D003-727

Document Type

Patent

Language

Japanese

Supplementary Indexing

urethane acrylate **coating** radiocurable; PTFE **coating** radiocurable; trimethylolpropane methacrylate **coating** radiocurable; electron beam curing **coating**; crosslinking radiochem **coating**

IT Related Fields

Indexing

Concept Group

Concept Heading

Electron beam, chemical and physical effects

CAplus Answer Number 277 - © 1997 ACS

Title

Outdoor covering materials

Patent Assignee

Mitsui Toatsu Chemicals, Inc., Japan

Publication Source

Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN

JKXXAF

Patent Information

JP 58057954 A2 830406 Showa

Application Information

JP 81-156142 811002

Abstract

A plastic sheet is coated with a membrane-forming mixt. of a F-contg. polymer and a polymer binder to give a durable outdoor covering material (e.g., for a greenhouse) with good light transmission. Thus, a 0.1-mm-thick flexible **PVC [9002-86-2]** sheet was coated with a AcNMe2 soln. of 8 parts poly(vinylidene fluoride) [24937-79-9] and 2 parts poly(Me methacrylate) [9011-14-7] to 3 .mu., and had 80% light transmission by JIS K 6714 after 1 yr outdoor weathering, compared with 60% without the **coating**.

International Patent Classification

B32B027-06; B32B027-30

Document Type

Patent

Language

Japanese

Supplementary Indexing

polyvinylidene fluoride polymethacrylate **coating PVC**; durability light transmission **PVC** film

IT Related Fields

Indexing

Concept Group

Concept Heading

Glass fibers, uses and miscellaneous

Role

USES (Uses)

Text Modification

(acrylic polymers reinforced by, for transparent outdoor coverings, **fluoropolymer coatings** for)

IT Related Fields

CAplus Answer Number 646 - © 1997 ACS

Title

PVC and fluoropolymer-based laminate and its manufacture

Inventor Name

Kawashima, Chikashi; Yoshida, Seiichi; Koga, Yasubumi

Patent Assignee

Central Glass Co., Ltd., Japan

Publication Source

Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN

JKXXAF

Patent Information

JP 02274534 A2 901108 Heisei

Application Information

JP 89-97220 890417

Abstract

Title laminates, useful as covering sheets, are prepd. by applying **PVC** film (or paste) over **polyester** cloth and laminating with fluoropolymer film (or **coating** with the polymer soln.) on 1 side after applying poly(Me methacrylate) (I) adhesive. A laminate, prepd. by applying I (SC 462) over each side of **PVC**-sandwiched **polyester** cloth (E5) and **coating** with vinylidene fluoride-chlorotrifluoroethylene graft copolymers in DMF soln. on 1 side, had satisfactory spots prevention property.

International Patent Classification

International Patent Classification, Main

B32B027-02

International Patent Classification, Secondary

B05D001-18

Document Type

Patent

Language

Japanese

Supplementary Indexing

PVC laminated **polyester** covering material; fluoropolymer laminated **PVC** covering material; spot prevention fluoropolymer laminate

IT Related Fields

Indexing

Concept Group

Concept Heading

Fluoropolymers